

Work Order ID 60396

July 7, 2010 9:52:51 AM



Page 1

Item ID:	D3281-1L02	Accept		Setup	Start	
Revision ID:					Stop	
Item Name:	Floor Protector, Fwd LH (Black)					
Start Date:	7/07/10	Start Qty:	4.00		Cust Item ID:	
Required Date:	7/14/10	Req'd Qty:	4.00		Customer:	
Reference:						
Approvals:	Process Plan:	<u>CZ</u>	Date:	<u>10/7/17</u>	Tooling:	Date:
	QC:		Date:		SPC (Y/N):	Date:

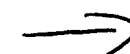
Run	Start	
	Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3281	Rev D Rev B
DSI 9504	A

100		0.00
	HAND FINISHING THERMOFORMING	
Thermoform	Memo	0.00
Thermoforming Machine	Cut Blanks	

Pto



(X4)

BB
10/07/16

105		0.00
	Dry Material	
HandThermo	Memo	0.00
Hand Finishing Thermoforming	Dry Sheet as per QSI022 POLYCARBONATE	
	Temp: <u>240F</u>	
	Time IN: <u>4:30 PM 10/07/18</u>	
	Time OUT: <u>7:00 AM 10/07/19</u>	

(X4)

BB
10/07/19

W/O: 60396

WORK ORDER CHANGES

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10/7/22	#100	Perm. change Fix Day Rev in LEAR box - to correct/correct Rev	E	10.07.28			S 10/27/22

Part No: D3281-1102 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 60396

July 7, 2010 9:52:51 AM

Page 2

Item ID: D3281-1L02

Accept

Revision ID:

Item Name: Floor Protector, Fwd.LH (Black)

Start Date: 7/07/10

Start Qty: 4.00

Required Date: 7/14/10

Req'd Qty: 4.00

Reference:

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

110



Thermoform

THERMOFORMING MACHINE

0.00

Memo

0.00

Thermoforming Machine

Thermoform as per Dwg. D3281 and Folio FTA 011

Dwg. Rev. EFolio Rev. D

120



QC

QC2- Inspect parts off machine FAI/FAIB

0.00

Memo

0.00

Quality Control

130



Thermoform

HAND FINISHING THERMOFORMING

0.00

Memo

0.00

Thermoforming Machine

Trim to Finished Dimensions

XY

BB

10/07/19

XY

BB

10/07/19

XY

BB

10/07/21

W/O:			WORK ORDER CHANGES					
DATE	STEP		PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:			WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP		Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
				Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 60396

July 7, 2010 9:52:51 AM

Page 3

Item ID: D3281-1L02

Accept

Revision ID:

Item Name: Floor Protector, Fwd LH (Black)

Start Date: 7/07/10 Start Qty: 4.00

Required Date: 7/14/10 Req'd Qty: 4.00

Reference:

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

140

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

10/07/21 (x8)

150

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8/10/22

(44)

160

Packaging

0.00



Packaging

Memo

0.00

Packaging

57 143

10-7-23

(40)

df

W/O:			WORK ORDER CHANGES					
DATE	STEP		PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:			WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP		Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
				Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 60396

July 7, 2010 9:52:51 AM



Page 4

Item ID: D3281-1L02

Accept

Revision ID:

Item Name: Floor Protector, Fwd LH (Black)

Start Date: 7/07/10 Start Qty: 4.00

Required Date: 7/14/10 Req'd Qty: 4.00

Reference:

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

170

QC21- Final Inspection - Work Order Release

0.00

QC

Memo

0.00

Quality Control

10/07/2648
MF
10-7-23

W/O:			WORK ORDER CHANGES					
DATE	STEP		PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:			WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP		Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
				Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

July 7, 2010 9:52:50 AM

Page 1

Work Order ID: 60396

Parent Item: D3281-1L02

Parent Item Name: Floor Protector, Fwd LH (Black)

Start Date: 7/07/10

Required Date: 7/14/10

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev: A ☐ 04.07.01 ☐ New issue ☐ KJ/JLM
IPP Rev B. 07.16.2007 Thermoform in house DL
Add Step 105 Dry Material 10/04/21 DL

IPP Rev. C

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MLEXS.093-F6006-02		Purchased	No				sf	1,057.296	4.333	17.332			
GE PLASTICS LEXAN SHEET													

Location

therm

110877

Loc Qty

1057.296

1057.296

Loc Code

XY BB
10/07/16.

W/O:			WORK ORDER CHANGES					
DATE	STEP		PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:			WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP		Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
				Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	60396
Description: Floor Protector, Fwd LH		Part Number:	D3281-1
Inspection Dwg: D3281	Rev: D	Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than 0.1875" Go/No Go	✓			
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

Measured by: JB

Date: 10/07/21

TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
18.6	+/-0.100	18.59	✓			
17.1	+/-0.100	17.1	✓			
11.7	+/-0.100	11.7	✓			
0.95	+/-0.030	.976	✓			
0.25	+/-0.030	.289	✓			
0.030	Min	.050	✓			
0.070	Min	.078	✓			

Measured by: JB

Date: 10/07/21

Audited by: DL

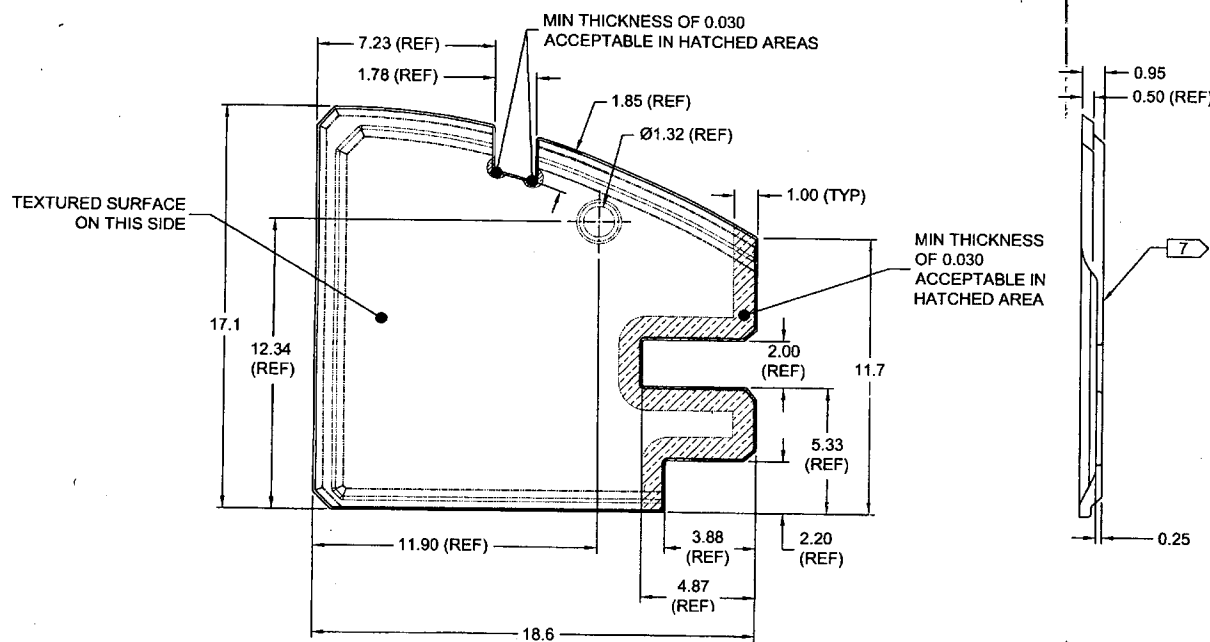
Date: 10/07/21

Prototype Approval:

N/A

Date: N/A

Rev	Date	Change	Revised by	Approved
A	08.02.28	New Issue	KJ/DL	
B	08.04.16	Dimensions updated per Dwg Rev D	KJ/DL	
C	08.09.12	Tolerance revised for 0.070 dimension	KJ/DL	

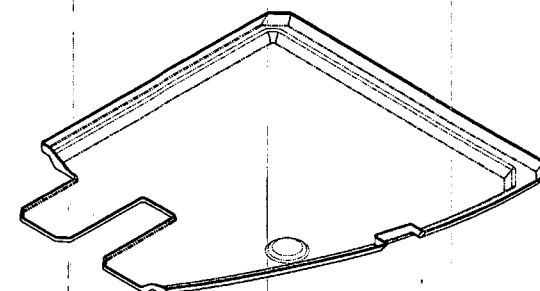


D3281-1 FLOOR PROTECTOR

D3281-1 NOTES:

- 1) THERMOFORM WITH MOLD D3281-1T1 PER DART QSI 022; TRIM AS SHOWN
MINIMUM THICKNESS AFTER FORMING: 0.070" EXCEPT WHERE INDICATED
- 2) MATERIAL: LEXAN F6006, BLACK No. 701, 0.093" THICK
(REF DART SPEC MLEXS.093-F6006-02)
- 3) FINISH: NONE
- 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.010 MAX
- 7) IDENTIFICATION: IDENTIFY WITH DART P/N "D3281-1" AND BATCH NUMBER "BXXXXX" ON SMOOTH SIDE OF PART USING VIBRATING STYLUS
- 8) WEIGHT: 0.95 lb

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NO. 60396
C210/717



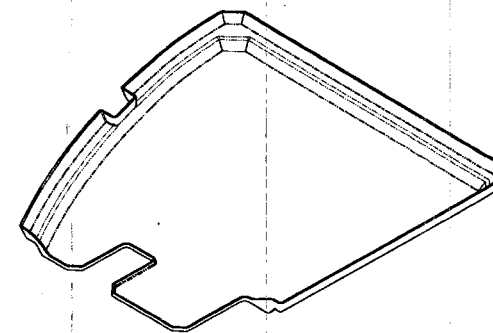
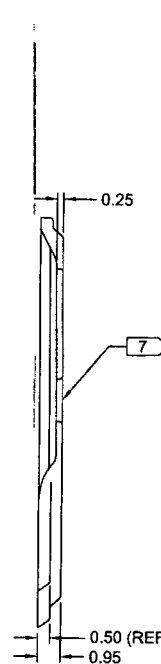
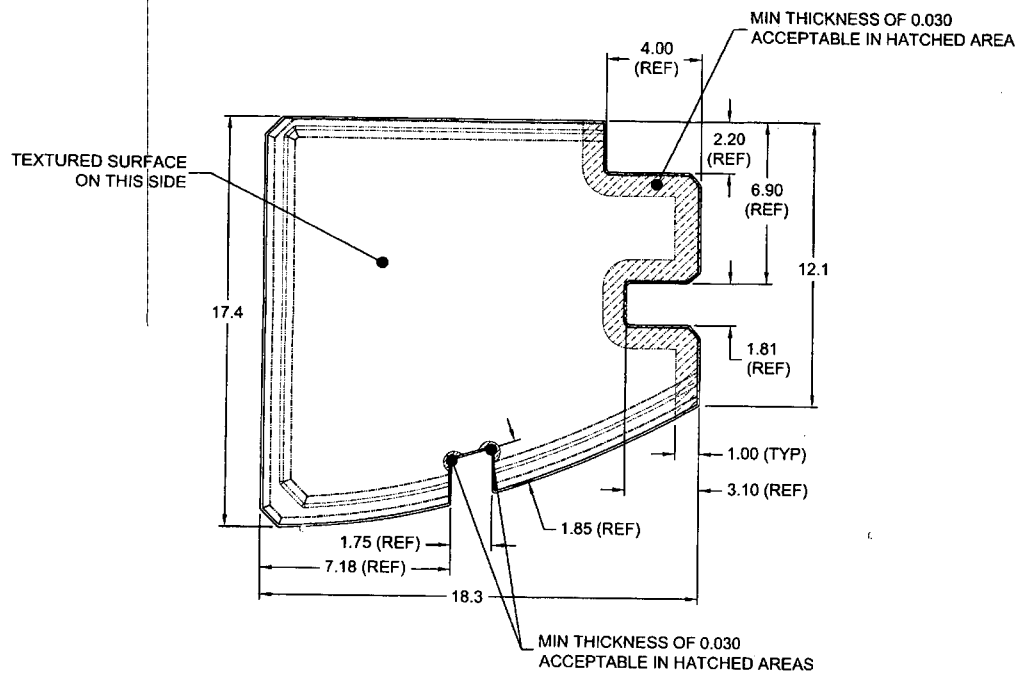
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2010-02-03
WJP

E	-3/4 NOW TRIMMED FLAT: RMV 0.25 BEVEL TO FACILITATE TRIMMING (ZN D6-3, D4-4)	CP	10.01.05
D	THICKNESS 0.093 WAS 0.125, MIN THICKNESS 0.070 WAS 0.080, P/N AND B/N ID WITH VIBRATING STYLUS (ZN A7-1, A7-2, A7-3, A7-4); D3281-4 NOW ON PAGE 4; CORRECT WEIGHTS (ZN A8-1, A8-2, A8-3, A8-4)	PH	08.03.28
C	UPDATE DIMS TO MATCH PARTS: COLOUR 701 WAS 700; GENERAL UPDATE	LE	07.10.09
B	NOW LEXAN; DIMS AS MANUFACTURED	CP	05.11.25
A	NEW ISSUE	CP	04.05.03
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	10.01.05		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. D3281
REV. E
SHEET 1 OF 4
TITLE FLOOR PROTECTOR
SCALE NTS

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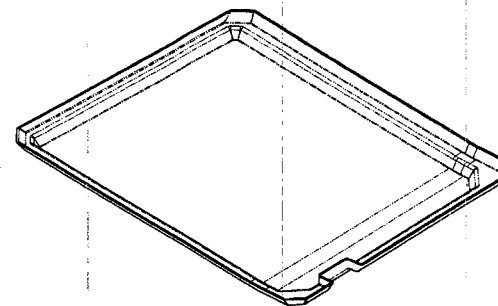
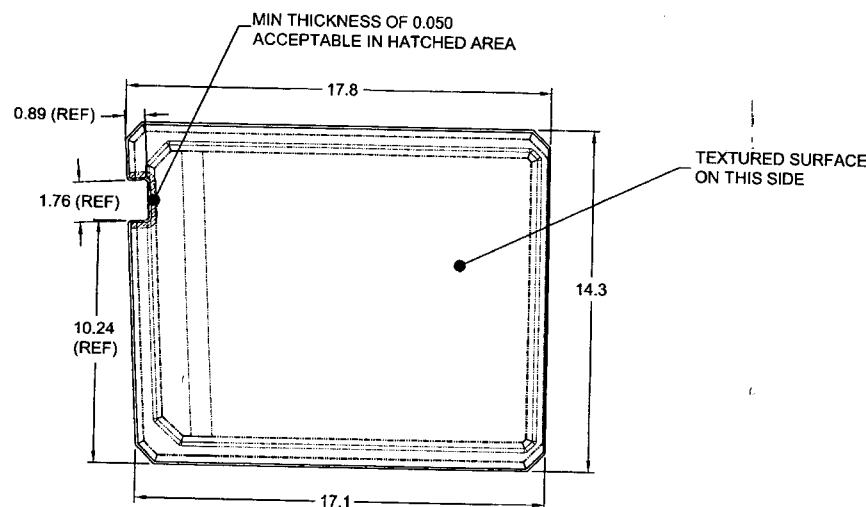
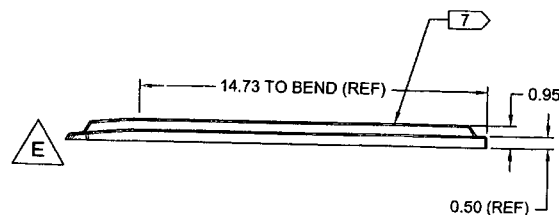
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2010-02-03

D3281-2 FLOOR PROTECTOR

D3281-2 NOTES:

- 1) THERMOFORM WITH MOLD D3281-2T1 PER DART QSI 022; TRIM AS SHOWN
MINIMUM THICKNESS AFTER FORMING: 0.070" EXCEPT WHERE INDICATED
- 2) MATERIAL: LEXAN F6006, BLACK No. 701, 0.093" THICK
(REF DART SPEC MLEXS.093-F6006-02)
- 3) FINISH: NONE
- 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.010 MAX
- 7) IDENTIFICATION: IDENTIFY WITH DART P/N "D3281-2" AND BATCH NUMBER "BXXXX" ON SMOOTH SIDE OF PART USING VIBRATING STYLUS
- 8) WEIGHT: 0.97 lb

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CHECKED		DRAWING NO.	REV.
MFG. APPR.	41	D3281	SHEET 2 OF 4
APPROVED	41	TITLE	SCALE
DE APPR.	41	FLOOR PROTECTOR	NTS
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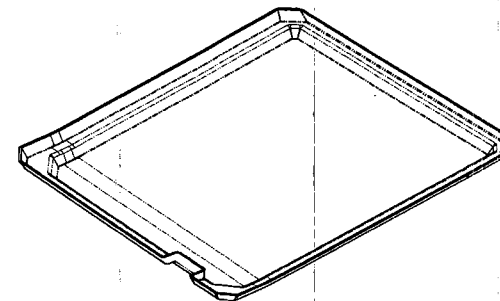
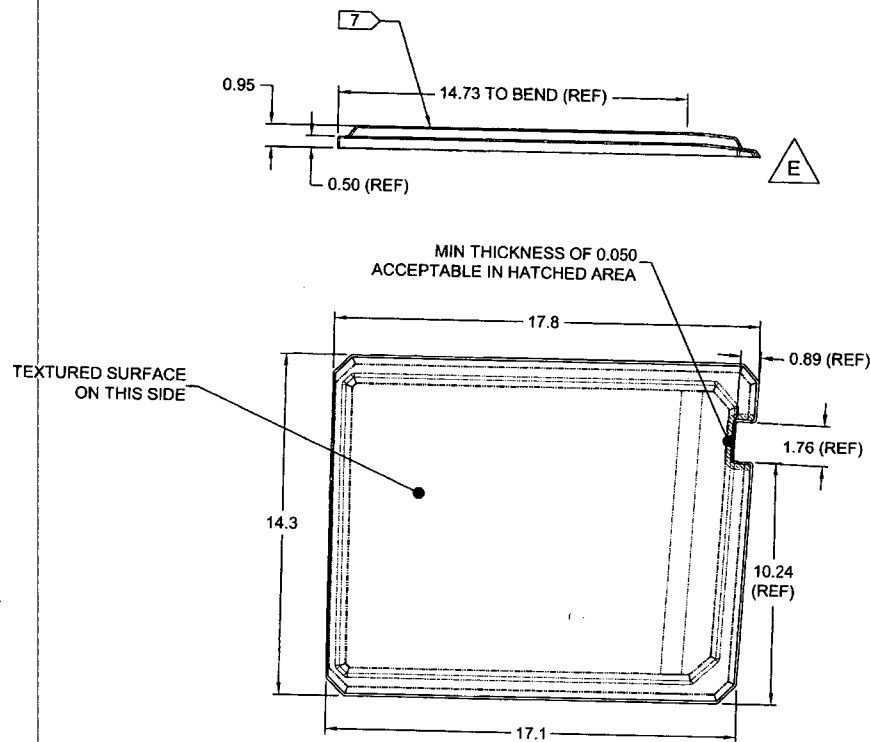
RELEASED
2010-02-03

D3281-3 FLOOR PROTECTOR

D3281-3 NOTES:

- 1) THERMOFORM WITH MOLD D3281-3T1 PER DART QSI 022; TRIM AS SHOWN
- 2) MATERIAL: LEXAN F6006, BLACK No. 701, 0.093" THICK (REF DART SPEC MLEXS.093-F6006-02)
- 3) FINISH: NONE
- 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.010 MAX
- 7) IDENTIFICATION: IDENTIFY WITH DART P/N "D3281-3" AND BATCH NUMBER "BXXXXX" ON SMOOTH SIDE OF PART USING VIBRATING STYLUS
- 8) WEIGHT: 0.87 lb

DESIGN		DART AEROSPACE LTD	
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MFG. APPR.		D3281	SHEET 3 OF 4
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D3281-4 NOTES:

- 1) THERMOFORM WITH MOLD D3281-4T1 PER DART QSI 022; TRIM AS SHOWN
MINIMUM THICKNESS AFTER FORMING: 0.070" EXCEPT WHERE INDICATED
- 2) MATERIAL: LEXAN F6006, BLACK No. 701, 0.093" THICK
(REF DART SPEC MLEXS.093-F6006-02)
- 3) FINISH: NONE
- 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.010 MAX
- 7) IDENTIFICATION: IDENTIFY WITH DART P/N "D3281-4" AND BATCH NUMBER "BXXXXX" ON SMOOTH SIDE OF PART USING VIBRATING STYLUS
- 8) WEIGHT: 0.87 lb

DESIGN	40	DART AEROSPACE LTD	
DRAWN	40	HAWKESBURY, ONTARIO, CANADA	
CHECKED	40	DRAWING NO.	REV. E
MFG. APPR.	40	D3281	SHEET 4 OF 4
APPROVED	40	TITLE	SCALE
DE APPR.	40	FLOOR PROTECTOR	NTS
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DRAWING NO. D3281	TITLE FLOOR PROTECTOR	REV. E	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D3281-E-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN 90	CHECKED JK	MFG. APPR. JK	APPROVED H		DE APPR. H		
DATE 10.02.24	DATE 10.02.25	DATE 10/02/25	DATE 10.02.25		DATE 10.02.25		

PURPOSE

ADD "D3281-xL08" MATERIAL OPTION. EXISTING PARTS TO BE IDENTIFIED AS "D3281-xL02"

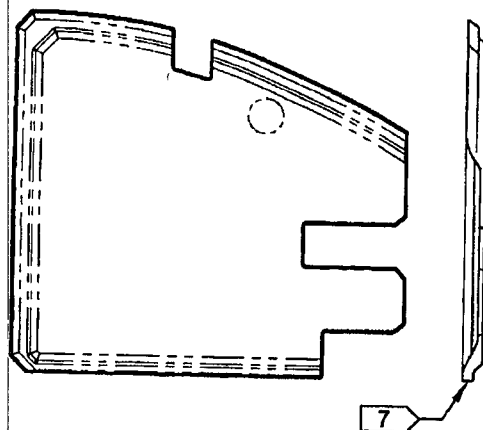
CHANGE

D3281-xL08 PARTS ARE EQUIVALENT TO THE RESPECTIVE "-x" PARTS EXCEPT AS DETAIL BELOW. THE MATERIAL, IDENTIFICATION, AND WEIGHT NOTES ARE AMENDED AS FOLLOWS:

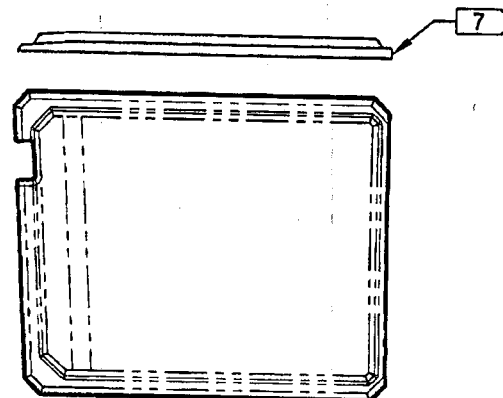
2) MATERIAL: -xL02 = LEXAN F6006, BLACK No. 701, 0.093" THICK (MLEXS.093-F6006-02)
-xL08 = LEXAN 90318 (PROTECT-A-GLAZE), 0.118 THICK, 112-CLEAR (MLEXS.118-90318-08)

7) IDENTIFICATION: IDENTIFY WITH DART P/N "D3281-xLxx" AND B/N "Bxxxxx" ON SMOOTH SIDE OF PART USING VIBRATING STYLUS.
FOR -xL08 PARTS, LOCATE ENGRAVING ALONG PERIMETER OF PART AS SHOWN.

8) WEIGHT: D3281-1L02/-2L02 = 0.95 lb D3281-1L08/-2L08 = 1.13 lb
D3281-1L02/-2L02 = 0.87 lb D3281-3L08/-4L08 = 1.05 lb



D3281-1L08 FLOOR PROTECTOR (SHOWN)
D3281-2L08 FLOOR PRETECTOR (OPPOSITE)
LOCATION OF ENGRAVING



D3281-3L08 FLOOR PROTECTOR (SHOWN)
D3281-4L08 FLOOR PRETECTOR (OPPOSITE)
LOCATION OF ENGRAVING

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